

REPORT

Report on participation of the ICMR International Fellow (ICMR-IF) in Training/Research abroad

1. Name and designation of ICMR- IF : Dr Pawan Kumar, Scientist
2. Address : Division of Pathology, ICAR- Indian Veterinary Research Institute, Izatnagar, Bareilly, Uttar Pradesh, Pin- 243122 (India)
3. Frontline area of research in which training/research was carried out : Exosome role in carcinogenesis
4. Name & address of Professor and host institute : Dr Gagan Deep, Associate Professor, Department of Cancer Biology, Wake Forest Baptist Medical Centre, Winston Salem, North Carolina, USA
5. Duration of fellowship with exact date : 12 months (05.02.2020 to 28.01.2021)
6. Highlights of work conducted:

(i) Technique/expertise acquired

- Cell culture technique was learned and practically culture the different prostate cancer cell lines (PC3, LnCAP, RC77T, 22Rv1 etc.) in the lab.
- Prostate cancer cell line culturing in the hypoxia CO₂ incubator.
- Clonogenic assay and MTT assay to evaluate the effect of the drugs on the cancer cell viability and growth.
- Exosome isolation (ultracentrifugation & ExoQuick method) from the cell culture media and body fluids.
- Exosome characterization (Nanoparticle tracking analysis)
- Western blotting technique
- Confocal microscopy
- Gene silencing in cell by using siRNA
- Real time PCR
- Immunofluorescence and immunohistochemistry
- Mass spectrophotometry
- Statistical analysis on the Graph Pad Prism